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HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

THIRD ANNUAL REPORT OF THE SECRETARY OF TRANSPORTATION

TO THE

CONGRESS OF THE UNITED STATES

IN COMPLIANCE WITH

SECTION 144(i), CHAPTER 1 OF TITLE 23,

UNITED STATES CODE

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SENATE RESOLUTION 412

Submitted by Mr. Stafford of Vermont

S. Res. 412

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PREFACE

Section 124 of the Surface Transportation Assistance Act (STAA) of 1978 extended and expanded the Special Bridge Replacement Program (SBRP) to what is known as the Highway Bridge Replacement and Rehabilitation Program (HBRRP). This revised program provides the Nation's public bridge owners with more funds and substantial flexibility in replacing or rehabilitating their deficient bridges.

The 1978 Act authorized a total of $4.2 billion for the program for fiscal years (FY) 1979 through 1982. The entire program authorization is now available to the States for obligation.

OBJECTIVE OF REPORT

This Annual Report to Congress is required by Section 144(i), Chapter 1 of Title 23, U.S. Code. The objective of this report is to describe in detail the progress made in administering the HBRRP through December 31, 1981, and the current status of bridge inventories of both Federal-aid and off-system highways.

SPECIAL BRIDGE REPLACEMENT PROGRAM

The SBRP began in 1970 and a total of $816.5 million was made available through FY 1978. From the initiation of the SBRP through December 31, 1981, a total of 1,695 bridges have been approved and $815.7 million obligated for their design and/or construction. A total of 832 of the 1,695 bridges are open to traffic. As the remaining projects are completed and the costs finalized, small amounts of money will become available for reobligation within the individual States. These funds are primarily used on projects where the final costs exceed the amount initially obligated. The SBRP will expire when these remaining funds are obligated.

THE HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM

The STAA of 1978 established the HBRRP to aid the States in an effort to alleviate the recognized nationwide bridge problem. The greatly increased funding level over a 4-year period has provided an incentive to the States and local governments to prepare plans and advance bridge projects to construction.

Revisions to existing regulations were required to accommodate the new bridge program. Final revised regulations for the HBRRP were published in the December 13, 1979, Federal Register. (See Appendix A). Revised regulations for the National Bridge Inspection Standards (NBIS) were published in the May 1, 1979, Federal Register (See Appendix B). The Federal Highway Administration (FHWA) has begun an evaluation of the NBIS and HBRRP regulations for possible changes to simplify procedures and improve the cost-effectiveness of the bridge program.

The HBRRP is being administered through organizational channels by the Washington Headquarters of the FHWA. The program is divided into two distinct categories: (1) apportioned funds distributed according to relative State needs, and (2) discretionary funds set aside for use by the Secretary of the Department of Transportation to replace or rehabilitate deficient, critically needed, high-cost bridges on the Federal-aid system.

The administration of the apportioned funds is, for the most part, a continuation of the earlier SBRP with a minimum number of revised regulations to accommodate the expanded program.

Discretionary Bridges

The discretionary bridge funds are being used to finance the replacement or rehabilitation of critically needed, high-cost, Federal-aid system bridges with replacement or rehabilitation costs exceeding $10 million or with an

estimated cost that is less than $10 million but is twice the amount apportioned to that State for the year in which funds are requested.

Financing schedules were initially requested from the States for bridges meeting the qualifications for the discretionary program. These financing schedules were used to establish master funding plans for planning purposes. Updates to the original planning list have been requested and the master funding plan has been revised annually.

The FHWA, in cooperation with the Office of the Secretary, developed an implementation plan for the purpose of administering the Secretary's discretionary bridge funds. Funding priority is given to bridges having legislative history with special consideration given to States whose accumulation of normal apportioned bridge replacement and rehabilitation funds over several years could not possibly fund an expensive structure. In subsequent fiscal years, first funding priority has been given to the continuation and completion of discretionary bridge projects begun in previous years. The remaining funds were allocated to new discretionary bridge candidates based on their legislative history, sufficiency rating, safety, cost effectiveness, essentiality to local and national transportation needs, and the need to administer the program from a balanced national perspective. Congressionally designated bridges were funded for the project phase requested, including preliminary engineering. Other projects ready to go to construction were selected within the limits of available funds.

The initial submission for FY 1979 of 110 bridges with estimated costs totaling $2.5 billion has now increased to 198 bridges requiring $ 4.5 billion of discretionary funds with project costs totaling $ 5.9 billion. Through December 31, 1981, 54 bridge projects have been selected for funding, including 36 suggested by Congress (See Table 3).

Program Status

The following table indicates the overall program status changes which have occurred since the Second Annual Report on the HBRRP was submitted. This table is based on a National Bridge Inventory (NBI) that is essentially complete for the Federal-aid system and 96 percent complete for the off-system.

	Second Annual HBRRP Report as of December 31, 1980		Being Reported December 31, 1981	
	Federal-aid	Off-system	Federal-aid	Off-system
Number of bridges inventoried and classified	256,505	268,361	259,950	297,566
Number of structurally deficient bridges** (includes closed bridges)	23,689*	83,054*	27,354*	99,301*
Number of functionally obsolete bridges**	37,860*	68,126*	40,342*	81,530*
Number of bridges that are load posted	----	----	14,800	69,500
Additional bridges that should be load posted	----	----	12,300	53,300
Total bridges that are or should be load posted	26,000	110,000	27,100	122,800
Number of bridges closed to all traffic (these bridges may be closed temporarily for repairs or closed permanently)	325	3,400	316	3,100
Total number of bridges funded under the bridge programs	SBRP 1,833 HBRRP 2,772 4,605	1,720	SBRP 1,695 HBRRP 3,969 5,664	2,995
Number of replaced or rehabilitated bridges now open to traffic	1,601	276	2,270	832

*The total number of deficient bridges (structurally deficient and functionally obsolete) reflects the FHWA's interpretation of the State's inventory data pertinent to this program, and need not necessarily agree with the State's records for these two categories.

**A structurally deficient bridge is one that has been restricted to light vehicles only, closed, or immediate rehabilitation is necessary to keep it open; a functionally obsolete bridge is identified as one on which the deck geometry, load carrying capacity, clearance, or approach roadway alignment can no longer safely service the system of which it is an integral part.

Many States continue to periodically submit updates to the NBI as the inventory and inspection program continues. The number of deficient bridges will continually vary due to the ongoing inspection program. The total number of Federal-aid and off-system bridges will vary slightly due to the construction of new bridges and the demolition or permanent closing of others. (See Table 4). As the initial inventory and inspection program draws closer to completion, the variance of the total number of bridges nationwide should be insignificant. A few bridges will be added to the total as the Interstate program continues and existing major highways are upgraded to divided highways with twin bridges.

The achievement of the States and local governments in submitting 96 percent of the off-system bridges to the NBI through December 31, 1981, has been remarkable. The States currently estimate that there are 313,700 off-system bridges nationwide and 305,900 or 98 percent have been inventoried as of December 31, 1981, although only 96 percent have been submitted to the NBI. There are 41 States reporting 100 percent of the off-system bridges inventoried, 7 between 90 and 100 percent, 3 between 80 and 90 percent and one reporting 53 percent. Most of those States not reporting 100 percent completion are progressing rapidly toward completion with only a nominal number not inventoried.

Project Eligibility

The FHWA, in consultation with the States, is continuing to establish bridge priorities by assigning a sufficiency rating to each bridge inventoried. The lower the sufficiency rating, the higher the priority for replacement or rehabilitation. The sufficiency rating is calculated based on the following general categories and relative percentages:

Structural Adequacy and Safety	- 55 percent
Serviceability and Functional Obsolescence	- 30 percent
Essentiality for Public Use	- 15 percent
	100 percent

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From data submitted by the States, a bridge replacement and rehabilitation selection list is compiled for each State with a sufficiency rating for each deficient bridge. Bridges on this list with a sufficiency rating of 0 through 80 are eligible for rehabilitation; however, to also be eligible for replacement, the sufficiency rating must be less than 50.

Deficient Bridge Costs

From an analysis of the current Federal-aid and off-system bridge data, it is estimated that 248,500 bridges are structurally deficient or functionally obsolete. Of these, 67,700 are on the Federal-aid system and 180,800 off the Federal-aid system. The current estimate to replace or rehabilitate the eligible deficient bridges is as follows:

System	Bridges Eligible for Replacement or Rehabilitation Sufficiency Rating < 50	Estimated Replacement Cost in Billions	Bridges Eligible for Rehabilitation Sufficiency Rating 50 - 80	Estimated Rehabilitation Cost in Billions	Total Cost in Billions
Interstate	420	$ 0.4	2,724	$ 1.3	$ 1.7
Primary	7,911	5.8	12,046	4.1	9.9
Urban	3,626	4.3	4,323	2.0	6.3
Secondary	14,650	3.6	15,509	3.1	6.7
Total Federal-aid	26,607	14.1	34,602	10.5	24.6
Off-system	121,618	18.8	50,692	4.2	23.0
Total	148,225	$32.9	85,294	$14.7	$47.6

These figures were arrived at by applying on- and off-system replacement bridge costs to deficient bridges with a sufficiency rating less than 50 (eligible for replacement or rehabilitation) and by applying on- and off-system rehabilitation bridge costs for deficient bridges with sufficiency ratings between 50 and 80 (eligible for rehabilitation only). There are another 6,500 bridges on the

Federal-aid system and 8,500 off the Federal-aid system classified by the States as deficient, but, due to sufficiency ratings above the acceptable range, they are not eligible for the program.

The number of deficient bridges and the replacement and rehabilitation costs has increased substantially since the last report. The off-system data submitted to the NBI continues to identify more deficient bridges than was projected from the data available for the Second Report to Congress. The continuing inspection of off-system bridges also indicates that these bridges are deteriorating at a more rapid rate than anticipated.

It is expected that the number of deficient bridges on the Federal-aid system will begin to accelerate in the near future. Primary system bridges have received much recent attention from the States. These bridges are beginning to deteriorate at a rapid pace due to heavier and more truck traffic, advancing age, climatological attacks, deicing chemicals, recent severe winters and deferred maintenance by fund strapped States. Rehabilitation must be performed more often. The rapidly accruing needs of bridges on the Primary and Interstate systems will steadily demand a larger and larger portion of available funds to prevent further decline of their load carrying capacity and safety.

The age of a bridge can be an important element in its useful life, and in combination with other factors, determine its length of service. Some of these factors were noted previously as contributing to the deterioration of primary system bridges. Although scheduled routine preventive maintenance can add years of useful life to a structure, a good maintenance program does not assure that a bridge can remain in service forever. Many of our older bridges were designed for loadings appropriate at the time of design but are less than the current allowable loads. Increased and heavier truck traffic even on a well

maintained bridge can weaken the bridge. These deficient bridges with low original design loads, along with bridges with insufficient width to carry the increase in traffic volumes, must be evaluated for cost-effectiveness and compete for funding with the structurally deficient bridges.

As deterioration, fatigue and increased heavier truck traffic reduce the load carrying capacity of bridges, restrictive load posting is required to provide for the safe movement of traffic across the bridge. A weak or deteriorated bridge which requires load posting can be devastating and can impact on individuals, local businesses and entire communities. This impact includes delay in emergency services, time lost in traversing detour routes, additional fuel consumption and extra costs of transported goods which must be passed on to the consumer. Additional public costs, such as operation of school buses, which could result in higher tax burdens are also probable. The actual detour costs to the highway user can be tremendous. (See Chart 2). The detour costs for one posted bridge shown by the example indicates dramatically the effect of load posted bridges. Similar actual costs for industries and the public have been documented at a number of sites with closed or load posted bridges.

The number of bridges, by system, over 40 years old and less than 40 years old are shown below.

System	Built 1940 or earlier	Built after 1940
Interstate	1,145	46,923
Primary	32,978	56,662
Secondary	32,192	58,882
Urban	10,274	20,461
Total Federal-aid	76,589	182,928
Off-system	129,239	165,086
Total	205,828	348,014

Status of Funds

HBRRP funds authorized and currently available under this program total:

	FY 1979	FY 1980	FY 1981	FY 1982
Secretary's discretionary funds	$200 mil	$200 mil	$200 mil	$200 mil
Apportioned funds (See Table 1)	628 mil	878 mil	928 mil	682 mil
Acceleration of bridge projects	54 mil	0	146 mil	0
2 percent Administration	18 mil	22 mil	26 mil	18 mil
Totals	$900 mil	$1,100 mil	$1,300 mil	$900 mil

The overall obligation rate of the bridge funds in the first 3 years of the program shows the States have responded well to the expanded program. (See Charts 1A-D). Through the first 3 years a total of $2,257.5 million were obligated. This was approximately 74.4 percent of the total available apportioned and discretionary funds. An additional $245.8 million was obligated in the first quarter of FY 1982 for a total obligation of $2,503.3 million through December 31, 1981. This obligation rate is good considering the bridge program must compete with other high priority projects within the obligation authority of the individual States. A tabulation of the discretionary and apportioned funds obligated is shown below.

Fiscal Year	Secretary's Discretionary Fund	Apportioned Funds	Total Funds Obligated
1979	$ 178.9 million	$ 423.4 million	$ 602.3 million
1980	140.6	619.4	760.0
1981	164.4	730.8	895.2
1982 (1st qtr.)	15.6	230.2	245.8
Total	$ 499.5 million	$2,003.8 million	$2,503.3 million

Some of the apportioned funds are being used to continue projects begun with SBRP funds. These changes are reflected in the table on page 4 which shows a decrease in the number of bridges funded under the SBRP. The bridges are included in the number of bridges funded under the HBRRP. The apportioned funds are also being used to inventory, inspect and evaluate bridges as required by the NBIS. Of the $96.8 million obligated for this purpose by the States, 34 States obligated

$41.7 million on the Federal-aid system and 36 States obligated $55.1 million on the off-system. In addition, 3 States have obligated $0.5 million to inventory bridges for historic significance in accordance with the 1978 STAA.

The expansion of the bridge program to permit rehabilitation provides the States and local governments greater flexibility in determining the methods used to correct deficiencies. Rehabilitation, which an analysis often shows to be cost effective, can provide for an extended bridge service life if undertaken before deterioration reaches an advanced stage. By accomplishing rehabilitation early, more costly replacement can be deferred and a given bridge can provide reliable service to the public for an extended period of time. There are some types of structures, such as through trusses, which do not lend themselves to rehabilitation which requires widening. The number of bridges and Federal funds obligated on rehabilitation are shown below:

	# of Bridges	% of bridges selected (by System)	Funds Obligated	% of Funds Obligated (by System)
Federal-Aid	493	12.5	$ 294.4 million	14.0
Off-system	90	3.1	$ 22.3 million	5.7
Total	583	8.3	$ 316.7 million	12.7

To assure that funds would be available for off-system bridges, the 1978 legislation directed that a minimum of 15 percent and a maximum of 35 percent of the apportioned funds must be expended for bridges off the Federal-aid system. Through the first 3 years of the program, a total of $329.1 million or 18.6 percent of the total apportioned funds obligated were used for off-system bridges. An additional $39.1 million was obligated in the first quarter of FY 1982, which

resulted in a total obligation of $368.2 million from the beginning of FY 79 through December 31, 1981. A total of $86.1 million of these obligations was from the 20 percent of the apportioned funds which may be spent on either the Federal-aid or off-system. (See Chart 1D). The remaining $161.9 million of the total $248.0 million obligated from the optional 20 percent category of funds was used for Federal-aid system bridges. The percent of funds obligated on off-system bridges has increased each year.

Training

The FHWA has prepared and distributed training material to aid in the inventory and inspection of off-system bridges. The material currently available and under development is as follows:

1. A series of video tapes explaining and showing, in detail, the procedures for inspecting and coding some basic types of bridges is currently available. A contract is being awarded to produce another in the series on inspection of prestressed concrete bridges. Although the tapes are designed primarily for local governments, they will be made available to all public agencies.

2. A free package of bridge inspection material and instructions to help in the inventory, inspection, and coding of bridges is available to local governments upon request.

3. A training course package entitled "Practical Highway Bridge Inspection for Local Jurisdiction Inspectors," has been developed by FHWA. The training package provides basic bridge inspection training for local government individuals who will conduct the actual inspection of off-system bridges.

4. A contract will be awarded to present 10 sessions of the training course to local governments with an option for an additional 20 sessions at various sites throughout the country. These courses are scheduled to begin in the spring of 1982.

Although the off-system inventory is nearing completion, the training programs being developed, along with those already completed, will provide much needed assistance to all levels of government in continuing bridge inspections to meet the required 2-year inspection interval.

Acceleration of Bridge Projects

Although not directly included in the HBRRP, the Acceleration of Bridge Projects, Section 147 of the STAA of 1978, is funded under the bridge program. This section directs the Secretary to complete two projects located on the Federal-aid system, which traverse major bodies of water, in order to demonstrate the feasibility of reducing the time required to replace unsafe bridges. The two projects selected were the U.S. Grant Bridge over the Ohio River between Portsmouth, Ohio, and South Shore, Kentucky, and the East Huntington Bridge over the Ohio River at Huntington, West Virginia. Final design of the U.S. Grant Bridge is underway for a facility on new alignment about 1.1 miles downstream from the existing bridge. Construction of the main portion of East Huntington Bridge is well underway. Design has begun on the remaining connector section of the project.

Historic Bridges

Earlier in this report it was noted that States may now use HBRRP funds to inventory their bridges for historic significance. This inventory is

an important step to the preservation of historic bridges and should reduce the number and length of delays of projects involving historic or potentially historic bridges by identifying those that are of greatest significance and appropriate for rehabilitation, if rehabilitation is determined to be feasible. A representative from each FHWA Division Office has met with the head of the State bridge office and strongly encouraged the development of a historic bridge inventory.

The FHWA has prepared and distributed to the field offices a report on the results of these meetings, the extent of the State inventories contemplated, presently underway or completed, and what coordination has taken place on the inventory with the State Historic Preservation Officer.

At the recommendation of FHWA, and other interested groups, the Transportation Research Board has selected a consultant to study criteria States are using in their determination of which bridges are historic.

Alternate Bridge Design

Bridge economy is an important factor in the bridge program. A primary goal in bridge design is to produce a design that will safely serve its intended purpose through its design life yet cost no more than necessary. The budgetary restrictions of a particular political subdivision also must be considered. The use of alternate bridge designs has proven to be effective in bridge economy. It is most effective when the bridge project involves multiple repetitive spans, long spans, major bridges, or when there is an extended period of time between project design and the acceptance of competitive bids for construction. The FHWA encourages alternate designs to promote increased competition between materials and construction procedures and to provide maximum contractor flexibility.

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Items of Concern

Through FY 1982, the HBRRP funds were apportioned to each State based on 1977 bridge inventory data. The apportionment factors currently in use were developed and approved by the Congress before the enactment of the 1978 STAA. Therefore, the current apportionment factors do not reflect the major changes to the bridge program made by the 1978 Act and the current condition of bridges eligible for the program.

The number of deficient bridges on the primary system is expected to accelerate in the near future as more and more of these bridges approach their design life. The increased needs of bridges on the major arteries of our highway network will require a larger portion of available funds in order to maintain the safety, integrity and efficiency of this important system.

Summary

All individuals who travel the Nation's highways are cognizant of the bridge problem. The bridge needs have been identified through the required inventory and inspection program with the needs increasing yearly. (See Chart 3). Progress has been made in that 8,659 bridges (6,964 with HBRRP funds) have been or are in the process of being replaced or rehabilitated, thereby removing these deficient bridges from the highways. A concentrated effort will be required at all levels of government to reduce the accruing deficient bridge needs.

The bridge apportionment factors currently in use should be revised annually to more accurately reflect the relative State needs and to include the major revisions to the bridge program contained in the 1978 Act. Since most

States update their bridge file continually, a yearly update to the NBI will provide current bridge data as a basis to prepare apportionment factors.

The Administration is currently preparing an overall highway program proposal for consideration by the Congress. Bridge program recommendations will be a part of that submission.

TABLE 1A

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STATUS OF FUNDS APPORTIONED FOR
BRIDGE REPLACEMENT & REHABILITATION MANDATORY 65% ON-SYSTEM - 318

AS OF DECEMBER 31, 1981

STATE	TOTAL AVAILABLE	OBLIGATIONS THRU F. Y. 81	OBLIGATIONS F. Y. 82 TO DATE	OBLIGATIONS TOTAL	UNOBLIGATED BALANCE
ALABAMA	28,386,479.00	20,514,697.52	3,536,799.93	24,051,497.45	4,329,181.55
ALASKA	5,063,783.00	3,120,295.00	1,006,534.00	4,126,849.00	936,934.00
ARIZONA	5,063,783.00	3,525,593.83	1,539,199.17	5,063,793.00	
ARKANSAS	33,674,561.00	20,896,983.00	560,659.00	21,457,642.00	12,216,919.00
CALIFORNIA	53,496,562.00	23,399,599.25	1,233,837.00	24,633,430.25	28,857,131.75
COLORADO	9,318,900.00	6,806,413.00	725,773.00	7,532,186.00	1,786,714.00
CONNECTICUT	6,893,430.00	4,139,257.84	105,600.00	4,244,857.84	2,648,572.16
DELAWARE	5,063,783.00	2,760,296.12	40,400.00	2,780,696.12	2,283,086.88
FLORIDA	70,700,150.00	54,805,714.00	2,829,849.00	57,715,563.00	12,984,567.00
GEORGIA	53,270,387.00	28,525,167.53	3,252,880.46	31,778,047.99	21,492,339.01
HAWAII	7,417,834.00	5,075,879.00	253,306.00CR	4,822,573.00	2,595,261.00
IDAHO	12,222,352.00	6,051,564.79	2,894,081.00	8,945,645.79	3,276,706.21
ILLINOIS	162,041,048.00	125,254,811.29	3,780,112.01	129,034,923.30	33,006,124.70
INDIANA	18,284,358.00	14,255,350.20	2,408,152.00	16,861,502.00	1,422,806.00
IOWA	48,336,443.00	24,321,042.91	3,201,215.07	27,522,257.98	20,814,185.12
KANSAS	34,099,429.00	28,345,051.33	6,249,466.63	34,594,517.66	19,504,911.34
KENTUCKY	83,598,834.00	50,813,887.56	13,499,984.56	64,313,792.12	19,285,046.88
LOUISIANA	120,257,143.00	74,011,849.36	22,703,574.32	96,715,423.68	23,541,719.32
MAINE	14,326,175.00	10,843,504.13	648,640.00	11,492,144.18	2,834,030.90
MARYLAND	37,801,341.00	29,528,210.00	822,387.00	30,150,597.00	7,650,744.00
MASSACHUSETTS	43,400,872.00	31,434,828.32	54,557.60	31,459,385.92	11,941,486.08
MICHIGAN	29,425,440.00	21,855,704.64	683,772.15	22,539,478.79	6,885,961.21
MINNESOTA	67,867,268.00	41,658,594.46	6,119,788.85	49,778,383.31	18,088,884.69
MISSISSIPPI	14,979,226.00	9,858,832.36	121,440.00CR	9,737,432.00	5,237,794.00
MISSOURI	28,291,962.00	21,427,373.45	6,807,523.73	28,234,897.18	57,064.82
MONTANA	9,636,177.00	3,634,650.00	1,813,888.00	5,418,655.00	4,217,721.00
NEBRASKA	33,435,348.00	26,117,750.00	1,958,912.11	28,076,262.11	5,359,085.89
NEVADA	5,063,783.00	1,846,679.00	20,481.00CR	1,826,278.00	3,237,505.00
NEW HAMPSHIRE	21,255,735.00	10,737,749.10	901,767.96	11,209,517.06	10,046,217.94
NEW JERSEY	34,892,298.00	22,959,917.09	34,512.00	22,994,429.09	11,897,868.91
NEW MEXICO	8,648,334.00	5,267,096.04	320,735.08	5,587,831.12	3,060,502.88
NEW YORK	162,041,048.00	122,811,828.00	6,155,709.00	128,967,591.00	33,073,517.00
NORTH CAROLINA	47,697,795.00	34,522,316.00	1,885,956.00	36,948,272.00	11,349,523.00
NORTH DAKOTA	13,363,976.00	10,576,148.08	125,105.32	10,501,253.40	2,802,722.60
OHIO	46,305,053.00	28,450,115.00	2,179,480.00	30,629,595.00	15,675,458.00
OKLAHOMA	12,736,630.00	6,369,361.62	289,280.02CR	6,080,081.60	6,656,548.40
OREGON	19,946,772.00	11,061,828.70	316,405.81	11,378,234.51	8,568,537.49
PENNSYLVANIA	117,029,235.00	72,555,020.25	43,647,742.00	116,202,762.25	822,472.75
RHODE ISLAND	12,293,043.00	1,970,181.44	36,000.00	2,006,181.44	10,286,861.56
SOUTH CAROLINA	32,580,985.00	12,570,667.19	569,728.59	13,140,395.78	19,440,589.22
SOUTH DAKOTA	10,891,272.92	5,159,736.80	319,549.00	5,479,285.80	5,211,987.12
TENNESSEE	67,703,788.00	29,833,550.00	9,603,638.00	39,407,188.00	28,296,600.00
TEXAS	82,926,151.00	62,752,083.57	1,240.57CR	62,750,843.00	20,177,308.00
UTAH	5,063,783.00	3,029,322.35	101,300.00CR	2,926,022.35	2,137,760.65
VERMONT	22,643,007.00	5,279,821.43	478,993.10	5,758,804.53	16,884,202.47
VIRGINIA	77,807,857.00	39,297,461.76	6,749,942.55	46,047,404.29	31,760,452.71
WASHINGTON	57,601,339.00	38,720,300.47	5,193,344.28	43,893,644.75	13,707,694.25
WEST VIRGINIA	30,213,363.00	16,669,459.00	1,388,300.00	18,057,759.00	12,155,604.00
WISCONSIN	47,934,374.00	34,987,405.60	5,116,988.07	40,104,393.75	7,829,980.25
WYOMING	5,063,783.00	2,588,811.00	20,174.00CR	2,568,737.00	2,495,046.00
DIST. OF COL.	22,030,494.00	6,466,894.55		6,466,894.55	15,563,599.45
PUERTO RICO	6,972,993.00	4,255,473.56	173,540.44	4,429,016.00	2,543,977.00
TOTAL	2,027,170,274.92	1,280,422,262.76	174,622,317.00	1,455,044,579.76	572,125,695.16

TABLE 18

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STATUS OF FUNDS APPORTIONED FOR
BRIDGE REPLACEMENT & REHABILITATION AUTHORIZED UNDER FAP-SYSTEM - 117

AS OF DECEMBER 31, 1981

STATE	TOTAL AVAILABLE	OBLIGATIONS THRU F. Y. 81	OBLIGATIONS F. Y. 82 TO DATE	OBLIGATIONS TOTAL	UNOBLIGATED BALANCE
ALABAMA	6,949,388.00	2,691,520.06	329,494.75	3,021,014.75	3,929,373.25
ALASKA	1,168,965.00	307,168.50		307,168.00	861,797.00
ARIZONA	1,168,565.00	806,066.00	91,049.00CR	885,626.00	282,939.00
ARKANSAS	7,771,092.00	5,230,980.00	1,718,910.00	6,927,890.00	843,162.00
CALIFORNIA	12,343,974.00	8,775,499.00	288,129.00CR	8,567,315.00	3,776,659.00
COLORADO	2,196,669.00	1,085,481.00	137,568.00	1,143,049.00	1,053,620.00
CONNECTICUT	1,590,792.00	1,237,514.00		1,237,514.00	353,278.00
DELAWARE	1,168,965.00	56,000.00		56,000.00	1,112,965.00
FLORIDA	16,315,414.00	6,982,796.00	253,736.00	7,206,522.00	9,108,892.00
GEORGIA	12,293,167.00	7,684,221.17	977,992.09	7,982,213.26	4,310,953.74
HAWAII	1,711,886.00	854,219.00		854,219.00	1,057,593.00
IDAHO	2,620,545.00	1,810,391.00	48,405.34	1,858,796.34	960,748.66
ILLINOIS	37,394,088.00	28,884,484.44	168,125.44	29,052,529.88	8,341,558.12
INDIANA	4,219,456.00	2,813,960.00	1,599,200.00	4,213,160.00	6,296.00
IOWA	11,154,609.00	8,481,586.89	531,670.19	9,013,235.08	2,141,373.92
KANSAS	12,489,481.00	7,440,685.32	1,007,290.94	8,447,984.26	4,036,996.74
KENTUCKY	19,384,348.00	11,450,700.20	7,837,449.00	19,318,189.20	66,158.80
LOUISIANA	27,731,649.00	11,231,116.23	1,299,542.23	12,496,658.46	15,234,990.54
MAINE	3,304,687.00	2,193,137.38	221,308.04	2,354,445.42	950,211.58
MARYLAND	8,725,384.00	5,382,347.00	469,478.00	4,039,875.00	4,687,511.00
MASSACHUSETTS	10,819,986.00	3,726,665.68		3,726,665.68	6,388,920.40
MICHIGAN	6,790,485.00	4,579,045.73	42,320.00	4,621,365.73	2,169,119.27
MINNESOTA	15,661,672.00	12,233,988.00	930,117.09	12,764,105.09	2,897,566.91
MISSISSIPPI	3,455,822.00	1,634,240.00	402,640.00	1,456,880.00	1,998,942.00
MISSOURI	6,328,414.00	3,861,664.00	1,836,256.00	4,877,920.00	1,450,994.00
MONTANA	2,223,733.00	1,577,782.00	123,670.21	1,701,372.21	522,360.79
NEBRASKA	7,715,049.00	5,767,650.21	119,907.43	5,887,557.64	1,827,291.36
NEVADA	1,164,965.00	845,995.00	38,000.00	884,995.00	300,570.00
NEW HAMPSHIRE	4,705,170.00	3,763,870.66	372,476.89	4,016,355.55	588,814.45
NEW JERSEY	8,052,070.00	4,493,521.47	19,100.01CR	4,476,421.42	3,575,648.58
NEW MEXICO	1,995,770.00	928,769.43		928,769.43	1,067,000.57
NEW YORK	37,394,088.00	26,488,464.00	7,588,108.00	34,054,572.00	3,339,516.00
NORTH CAROLINA	11,007,184.00	8,387,176.86	1,629,117.00	10,016,293.86	990,891.00
NORTH DAKOTA	3,070,148.00	2,298,309.31	1,000.00CR	2,297,309.31	772,829.69
OHIO	10,695,791.00	4,844,719.00	712,119.00	5,556,838.00	5,138,953.00
OKLAHOMA	2,959,223.00	2,220,604.67	18,000.00CR	2,212,604.67	746,618.33
OREGON	4,601,716.00	2,462,706.27	816,396.00	3,279,100.27	1,322,615.73
PENNSYLVANIA	27,095,825.00	20,950,075.00	1,581,706.00	12,531,782.00	14,494,043.00
RHODE ISLAND	2,036,855.00	1,880,401.29		1,880,401.29	1,756,163.71
SOUTH CAROLINA	7,518,689.00	3,188,259.51	89,680.00	3,277,927.51	4,240,761.49
SOUTH DAKOTA	2,130,949.00	1,477,757.79	615,834.83	2,093,592.62	37,356.38
TENNESSEE	15,623,951.00	11,937,816.00	219,487.00	12,157,303.00	3,466,648.00
TEXAS	19,187,265.00	4,371,465.00	1,343,939.00	9,715,401.00	13,421,863.00
UTAH	1,168,965.00	879,480.00	297,905.00	973,385.00	195,260.00
VERMONT	5,225,310.00	3,808,499.76	213,350.24	4,021,850.00	1,203,460.00
VIRGINIA	17,955,699.00	2,568,171.17	3,309.93	2,571,481.10	15,384,177.90
WASHINGTON	13,292,617.00	8,563,507.99	1,344,211.24	9,907,719.23	3,384,898.17
WEST VIRGINIA	6,972,319.00	5,219,237.00	290,984.00CR	4,928,253.00	2,044,062.00
WISCONSIN	11,061,778.00	7,804,506.01	779,434.86	8,583,940.87	2,477,837.13
WYOMING	1,168,965.00	269,166.00	8,451.00	275,617.00	342,948.00
DIST. OF COL.					
PUERTO RICO	1,916,849.00	701,527.67	176,935.26	878,463.03	638,381.97
TOTAL	462,342,149.00	264,639,819.77	36,881,190.05	300,686,209.82	161,655,933.18

TABLE 1C

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STATUS OF FUNDS APPORTIONED FOR
BRIDGE REPLACEMENT & REHABILITATION (OPTIONAL 80% OR/OFF-SYSTEM - 144

AS OF DECEMBER 31, 1981

STATE	TOTAL AVAILABLE	OBLIGATIONS THRU F. Y. 81	OBLIGATIONS F. Y. 82 TO DATE	OBLIGATIONS TOTAL	UNOBLIGATED BALANCE
ALABAMA	4,734,517.00	3,621,520.00	880,142.48CR	4,738,377.52	3,996,139.48
ALASKA	1,550,087.00				1,550,087.00
ARIZONA	1,990,087.00	369,817.30	289,691.83	373,490.83	984,596.17
ARKANSAS	10,361,485.00	1,610,662.00		1,610,662.00	8,750,791.00
CALIFORNIA	16,458,633.00	5,627,087.18	294,896.00CR	5,422,287.18	11,036,425.00
COLORADO	2,920,691.00	1,980,087.00	280,565.00	2,126,570.00	802,321.00
CONNECTICUT	2,121,059.00	1,582,604.00	54,000.00	1,586,604.00	534,650.12
DELAWARE	1,550,087.00		650.88	650.88	1,557,428.12
FLORIDA	21,753,886.00	16,609,951.00	399,895.00CR	16,210,056.00	5,543,790.00
GEORGIA	16,390,488.00	9,088,432.27	20,720.98	9,109,152.83	7,281,735.17
HAWAII	2,282,411.00	203,796.66	4,000.00	207,796.66	2,074,614.34
IDAHO	3,766,723.00	1,213,440.71	618,467.00	1,831,907.71	1,934,815.29
ILLINOIS	49,736,784.00	38,732,886.98	749,678.02CR	38,009,210.96	11,899,573.04
INDIANA	7,625,999.00	4,222,453.30	832,000.00	5,054,453.00	571,486.00
IOWA	14,872,813.00	7,529,368.47	297,534.38	7,827,102.85	7,045,710.15
KANSAS	16,649,970.00	8,665,480.00	2,440,000.00	11,105,480.00	5,540,490.00
KENTUCKY	25,845,795.00	6,428,062.00	2,715,416.00	9,143,478.00	16,702,317.00
LOUISIANA	37,082,196.36	2,233,889.00		2,233,889.00	34,748,307.00
MAINE	4,494,206.00	416,006.00		416,006.00	3,998,200.00
MARYLAND	11,691,182.00	8,564,062.00	101,144.00	8,765,206.00	2,925,976.00
MASSACHUSETTS	13,994,114.00	104,958.88		104,958.88	13,889,155.20
MICHIGAN	9,053,981.00	4,769,992.66	72,944.00CR	4,717,048.66	4,336,932.34
MINNESOTA	20,882,230.00	8,207,116.76	288,572.60CR	7,993,544.08	12,888,685.92
MISSISSIPPI	4,887,761.00	3,971,409.00	50,880.00CR	3,920,529.00	1,007,232.00
MISSOURI	8,705,219.00	3,450,876.96	5,972,512.37	8,402,589.33	302,629.67
MONTANA	2,964,976.00	1,223,723.33	159,084.00CR	1,064,639.33	1,998,336.67
NEBRASKA	10,287,799.00	7,217,023.72	362,020.00	7,519,044.52	2,768,754.48
NEVADA	1,950,087.00	691,209.00	49,825.00CR	642,178.00	919,909.00
NEW HAMPSHIRE	6,940,229.00	3,355,336.95		3,335,336.95	3,204,888.04
NEW JERSEY	10,736,092.00	6,779,200.00		6,779,200.00	3,956,892.00
NEW MEXICO	2,661,525.80	376,016.63		376,516.63	2,284,908.37
NEW YORK	49,850,764.00	25,094,492.00	3,692,001.00	24,786,493.00	25,072,291.00
NORTH CAROLINA	14,678,244.00	8,946,128.00	226,121.00	9,072,849.00	5,605,395.00
NORTH DAKOTA	4,093,930.00	1,621,243.35	145,790.27	1,627,033.62	2,466,496.38
OHIO	14,267,709.00	366,000.00		366,000.00	13,987,709.00
OKLAHOMA	3,918,961.00	1,639,290.00		1,639,290.00	2,279,681.00
OREGON	6,139,621.00	1,451,600.00	72,000.00	1,523,600.00	4,612,021.00
PENNSYLVANIA	36,007,763.00	1,750,960.00	349,840.00	2,100,400.00	33,907,363.00
RHODE ISLAND	3,782,474.00				3,782,474.00
SOUTH CAROLINA	10,024,919.00	689,910.00	125,720.00	735,564.00	9,289,391.00
SOUTH DAKOTA	2,841,265.00	2,094,993.00	441,177.79	2,536,110.79	305,154.21
TENNESSEE	29,021,935.00	9,716,900.00	1,086,724.00	7,603,624.30	19,220,911.00
TEXAS	25,516,306.00		78,850.00	78,850.00	25,437,506.00
UTAH	1,950,087.00	393,294.00	12,751.00CR	380,503.00	1,177,584.00
VERMONT	6,947,880.00	776,255.09	61,239.82	799,474.91	6,171,605.09
VIRGINIA	23,960,880.00	1,154,400.29		1,154,400.29	22,796,479.80
WASHINGTON	17,723,488.00	3,259,821.60		3,259,821.60	14,463,666.40
WEST VIRGINIA	9,296,420.00	4,276,248.00	152,000.00	4,428,248.00	4,868,172.00
WISCONSIN	14,749,099.00	8,192,600.78	322,729.63	8,715,330.33	6,033,768.67
WYOMING	1,950,087.00		884,004.00	884,004.00	874,083.00
DIST. OF COL.	11,862,573.00	9,765,913.23		9,765,913.23	4,096,657.77
PUERTO RICO	3,684,918.00	407,385.00		407,385.00	3,277,533.00
TOTAL	629,981,204.00	228,532,389.93	19,516,483.87	248,048,843.82	381,932,360.18

TABLE 1D

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STATUS OF FUNDS ALLOCATED FOR
BRIDGE REPLACEMENT DISCRETIONARY FUNDS - 119

AS OF DECEMBER 31, 1981

STATE	TOTAL AVAILABLE	OBLIGATIONS THRU F. Y. 81	OBLIGATIONS F. Y. 82 TO DATE	OBLIGATIONS TOTAL	UNOBLIGATED BALANCE
ALABAMA	3,968,000.00	1,520,000.00	648,000.00	2,448,000.00	1,520,000.00
ALASKA	20,741,000.00	20,741,000.00		20,741,000.00	
ARIZONA					
ARKANSAS					
CALIFORNIA	57,661,000.00	7,894,480.00	7,934,579.00	15,829,059.00	41,831,941.00
COLORADO	6,040,000.00		1,200,000.00	1,200,000.00	4,840,000.00
CONNECTICUT					
DELAWARE	17,023,000.00	6,463,000.00		6,463,000.00	10,560,000.00
FLORIDA	10,020,000.00	10,020,000.00		10,020,000.00	
GEORGIA	34,000,000.00	1,600,000.00		1,600,000.00	32,400,000.00
HAWAII					
IDAHO	19,360,000.00	9,600,000.00		9,600,000.00	9,760,000.00
ILLINOIS	52,610,000.00	46,896,720.00	236,880.00	47,293,520.00	7,316,480.00
INDIANA					
IOWA	36,489,000.00	26,158,973.00	99,503.00	26,258,476.00	10,230,524.00
KANSAS	14,773,900.00	11,971,900.00		11,971,900.00	2,802,000.00
KENTUCKY					
LOUISIANA					
MAINE	7,000,000.00	7,000,000.00		7,000,000.00	
MARYLAND	17,433,000.00	17,433,000.00		17,433,000.00	
MASSACHUSETTS	2,640,000.00	240,000.00		240,000.00	2,400,000.00
MICHIGAN	1,824,000.00	1,824,000.00		1,824,000.00	
MINNESOTA	6,588,000.00	770,000.10	50,406.00	770,403.00	5,917,596.00
MISSISSIPPI	9,680,000.00	1,680,000.00		1,680,000.10	8,000,000.00
MISSOURI	42,715,400.00	27,781,348.00	46,000.00	27,781,348.00	14,934,052.00
MONTANA					
NEBRASKA	3,020,030.00	2,455,000.00		2,455,000.00	565,030.00
NEVADA					
NEW HAMPSHIRE					
NEW JERSEY					
NEW MEXICO					
NEW YORK	68,768,000.00	33,996,000.00	616,000.00	34,612,000.00	34,156,000.00
NORTH CAROLINA					
NORTH DAKOTA	16,800,000.00	1,025,072.00	295,464.00CR	1,529,608.00	15,270,392.00
OHIO	25,680,000.00	25,679,738.00		25,679,738.00	262.00
OKLAHOMA					
OREGON	23,920,000.00	3,415,728.50		3,415,728.50	20,504,271.50
PENNSYLVANIA	60,480,000.00	39,184,648.00	688,582.00	39,873,159.00	20,606,850.00
RHODE ISLAND	3,418,000.00	3,018,000.00		3,018,000.00	400,000.00
SOUTH CAROLINA	37,085,951.00	15,567,667.78	4,401,563.22	19,969,231.00	17,116,720.00
SOUTH DAKOTA					
TENNESSEE	27,000,000.00				27,000,000.00
TEXAS	8,400,000.00	8,400,000.00		8,400,000.00	
UTAH					
VERMONT	708,000.00	200,000.00		200,000.00	508,000.00
VIRGINIA	28,773,000.00	28,773,000.00		28,773,000.00	
WASHINGTON	74,209,000.00	74,201,000.00		74,201,000.00	8,000.00
WEST VIRGINIA	8,000,000.00				8,000,000.00
WISCONSIN	55,807,961.00	49,659,785.82		49,659,785.82	6,148,175.18
WYOMING					
DIST. OF COL.					
PUERTO RICO					
SUBTOTAL	802,976,042.00 *	483,928,861.10	15,611,883.22	499,539,944.32	303,436,097.68
UNALLOCATED	23,958.00				23,958.00
TOTAL	800,000,000.00				300,460,055.68

* Adjustment pending to reflect $3,000,000 withdrawn from South Carolina.

TABLE 1E

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STATUS OF FUNDS ALLOCATED FOR
ACCELERATION OF ROUTINE PROJECTS - 230

AS OF DECEMBER 31, 1966

STATE	TOTAL AVAILABLE	OBLIGATIONS THRU F. Y. 65	OBLIGATIONS F. Y. 66 TO DATE	OBLIGATIONS TOTAL	UNOBLIGATED BALANCE
ALABAMA					
ALASKA					
ARIZONA					
ARKANSAS					
CALIFORNIA					
COLORADO					
CONNECTICUT					
DELAWARE					
FLORIDA					
GEORGIA					
HAWAII					
IDAHO					
ILLINOIS					
INDIANA					
IOWA					
KANSAS					
KENTUCKY	14,193,891.00	10,193,000.00		10,193,000.00	
LOUISIANA					
MAINE					
MARYLAND					
MASSACHUSETTS					
MICHIGAN					
MINNESOTA					
MISSISSIPPI					
MISSOURI					
MONTANA					
NEBRASKA					
NEVADA					
NEW HAMPSHIRE					
NEW JERSEY					
NEW MEXICO					
NEW YORK					
NORTH CAROLINA					
NORTH DAKOTA					
OHIO					
OKLAHOMA					
OREGON					
PENNSYLVANIA					
RHODE ISLAND					
SOUTH CAROLINA					
SOUTH DAKOTA					
TENNESSEE					
TEXAS					
UTAH					
VERMONT					
VIRGINIA					
WASHINGTON	11,334,117.00	11,442,000.00	990,218.00	12,432,218.00	1,098,017.00
WEST VIRGINIA					
WISCONSIN					
WYOMING					
DIST. OF COL.					
PUERTO RICO					
SUBTOTAL	36,117,917.00	47,275,000.00	990,218.00	48,274,103.00	1,098,017.00
UNALLOCATED	343,700,083.00				343,700,083.00
TOTAL	379,818,000.00				351,798,017.00

TABLE 1F

APPORTIONED HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM FUNDS
FY 1979 THROUGH FY 1982
AS OF DECEMBER 31, 1981

STATE	MANDATORY 65% ON SYSTEM	MANDATORY 15% OFF-SYSTEM	OPTIONAL 20% ON OR OFF SYSTEM	TOTAL APPORTIONMENT
Alabama	$ 28,380,679.00	$ 6,549,388.00	$ 8,732,517.00	$ 43,662,584.00
Alaska	5,063,783.00	1,168,565.00	1,558,087.00	7,790,435.00
Arizona	5,063,783.00	1,168,565.00	1,558,087.00	7,790,435.00
Arkansas	33,674,561.00	7,771,052.00	10,361,403.00	51,807,016.00
California	53,490,562.00	12,343,974.00	10,458,633.00	82,293,169.00
Colorado	9,518,900.00	2,196,669.00	2,928,891.00	14,644,460.00
Connecticut	6,893,430.00	1,590,792.00	2,121,055.00	10,605,277.00
Delaware	5,063,783.00	1,168,565.00	1,558,087.00	7,790,435.00
Florida	70,700,130.00	16,315,414.00	21,753,886.00	108,769,430.00
Georgia	53,270,387.00	12,293,167.00	16,390,888.00	81,954,442.00
Hawaii	7,417,834.00	1,711,808.00	2,282,411.00	11,412,053.00
Idaho	12,222,352.00	2,820,543.00	3,760,723.00	18,803,618.00
Illinois	162,041,048.00	37,394,088.00	49,858,784.00	249,293,920.00
Indiana	18,284,308.00	4,219,456.00	5,625,939.00	28,129,703.00
Iowa	48,336,643.00	11,154,609.00	14,872,813.00	74,364,065.00
Kansas	54,099,429.00	12,484,484.00	16,645,978.00	83,229,891.00
Kentucky	83,998,839.00	19,384,348.00	25,845,795.00	129,228,982.00
Louisiana	120,257,143.00	27,751,649.00	37,002,198.00	185,010,990.00
Maine	14,320,175.00	3,304,657.00	4,406,206.00	22,031,038.00
Maryland	37,801,341.00	8,723,386.00	11,631,182.00	58,155,909.00
Massachusetts	43,400,872.00	10,015,586.00	13,354,114.00	66,770,572.00
Michigan	29,425,440.00	6,790,485.00	9,053,981.00	45,269,906.00
Minnesota	67,867,248.00	15,661,672.00	20,882,230.00	104,411,150.00
Mississippi	14,975,226.00	3,455,822.00	4,607,761.00	23,038,809.00
Missouri	28,291,962.00	6,528,914.00	8,705,219.00	43,526,095.00
Montana	9,636,177.00	2,223,733.00	2,964,976.00	14,824,886.00
Nebraska	33,435,348.00	7,715,849.00	10,287,799.00	51,438,996.00
Nevada	5,063,783.00	1,168,565.00	1,558,087.00	7,790,435.00
New Hampshire	21,255,735.00	4,905,170.00	6,540,225.00	32,701,130.00
New Jersey	34,892,298.00	8,052,070.00	10,736,092.00	53,680,460.00
New Mexico	8,648,334.00	1,995,770.00	2,661,025.00	13,305,129.00
New York	162,041,048.00	37,394,088.00	49,858,784.00	249,293,920.00
North Carolina	47,697,795.00	11,007,184.00	14,676,244.00	73,381,223.00
North Dakota	13,303,976.00	3,070,148.00	4,093,530.00	20,467,654.00
Ohio	46,305,053.00	10,685,781.00	14,247,708.00	71,238,542.00
Oklahoma	12,736,630.00	2,939,223.00	3,918,961.00	19,594,814.00
Oregon	19,940,772.00	4,601,716.00	6,135,621.00	30,678,109.00
Pennsylvania	117,025,235.00	27,005,825.00	36,007,763.00	180,038,823.00
Rhode Island	12,293,043.00	2,836,855.00	3,782,474.00	18,912,372.00
South Carolina	32,580,985.00	7,518,689.00	10,024,919.00	50,124,593.00
South Dakota	10,891,272.92	2,130,949.00	2,841,265.00	15,863,486.92
Tennessee	67,703,788.00	15,623,951.00	20,831,935.00	104,159,674.00
Texas	82,928,151.00	19,137,265.00	25,516,356.00	127,581,772.00
Utah	5,063,783.00	1,168,565.00	1,558,087.00	7,790,435.00
Vermont	22,643,007.00	5,225,310.00	6,967,080.00	34,835,397.00
Virginia	77,807,857.00	17,955,659.00	23,940,880.00	119,704,396.00
Washington	57,601,339.00	13,292,617.00	17,723,488.00	88,617,444.00
West Virginia	30,213,363.00	6,972,315.00	9,296,420.00	46,482,098.00
Wisconsin	47,934,374.00	11,061,778.00	14,749,039.00	73,745,191.00
Wyoming	5,063,783.00	1,168,565.00	1,558,087.00	7,790,435.00
Dist. of Col.	22,030,494.00	0	11,862,573.00	33,893,067.00
Puerto Rico	6,572,993.00	1,516,845.00	3,684,918.00	11,774,756.00
Total	2,027,170,274.92	462,342,143.00	629,981,204.00	3,119,493,621.92

TABLE 2A

STATUS OF BRIDGES APPROVED FOR THE BRIDGE PROGRAMS
MANDATORY 65 PERCENT ON-SYSTEM - 118
AS OF DECEMBER 31, 1981

	BRIDGES BEING PREPARED FOR CONSTRUCTION	BRIDGES UNDER CONSTRUCTION	BRIDGES COMPLETE	TOTAL
ALABAMA	78	18	6	102
ALASKA	1	3	4	8
ARIZONA	0	3	5	8
ARKANSAS	20	10	3	33
CALIFORNIA	4	47	0	51
COLORADO	12	0	7	19
CONNECTICUT	5	4	3	12
DELAWARE	4	2	0	6
DIST. OF COL.	2	1	2	5
FLORIDA	38	25	13	76
GEORGIA	75	114	34	223
HAWAII	1	1	1	3
IDAHO	6	9	7	22
ILLINOIS	104	114	13	331
INDIANA	2	18	1	21
IOWA	68	44	50	162
KANSAS	69	27	52	148
KENTUCKY	81	92	17	190
LOUISIANA	62	50	44	156
MAINE	13	6	7	26
MARYLAND	1	14	6	21
MASSACHUSETTS	20	10	2	32
MICHIGAN	3	34	7	44
MINNESOTA	5	31	59	95
MISSISSIPPI	0	24	1	25
MISSOURI	39	4	4	47
MONTANA	0	3	5	8
NEBRASKA	66	72	43	181
NEVADA	7	3	0	10
NEW HAMPSHIRE	9	6	8	23
NEW JERSEY	24	4	4	32
NEW MEXICO	0	8	6	14
NEW YORK	90	49	50	189
NORTH CAROLINA	58	25	7	90
NORTH DAKOTA	0	16	17	33
OHIO	16	30	7	53
OKLAHOMA	2	4	2	8
OREGON	13	9	17	39
PENNSYLVANIA	89	17	3	109
RHODE ISLAND	6	1	0	7
SOUTH CAROLINA	35	13	12	60
SOUTH DAKOTA	1	16	10	27
TENNESSEE	213	48	42	303
TEXAS	20	67	44	131
UTAH	14	4	3	21
VERMONT	23	10	17	50
VIRGINIA	25	25	32	82
WASHINGTON	28	31	13	72
WEST VIRGINIA	10	14	1	25
WISCONSIN	96	32	83	211
WYOMING	1	6	3	10
PUERTO RICO	1	2	3	6
TOTAL	1,560	1,220	880	3,660

TABLE 2B

STATUS OF BRIDGES APPROVED FOR THE BRIDGE PROGRAMS
MANDATORY 15 PERCENT OFF-SYSTEM - 117
AS OF DECEMBER 31, 1981

	BRIDGES BEING PREPARED FOR CONSTRUCTION	BRIDGES UNDER CONSTRUCTION	BRIDGES COMPLETE	TOTAL
ALABAMA	7	25	17	49
ALASKA	2	0	0	2
ARIZONA	0	5	2	7
ARKANSAS	7	9	13	29
CALIFORNIA	15	26	0	41
COLORADO	0	0	0	0
CONNECTICUT	3	2	0	5
DELAWARE	0	0	0	0
DIST. OF COL.	0	0	0	0
FLORIDA	34	14	3	51
GEORGIA	46	32	28	106
HAWAII	0	1	0	1
IDAHO	1	12	4	17
ILLINOIS	68	67	247	382
INDIANA	5	15	0	20
IOWA	0	46	32	78
KANSAS	7	20	25	52
KENTUCKY	42	72	8	122
LOUISIANA	271	5	11	287
MAINE	5	7	8	20
MARYLAND	11	3	1	15
MASSACHUSETTS	1	1	1	3
MICHIGAN	1	13	2	16
MINNESOTA	0	33	103	136
MISSISSIPPI	2	4	0	6
MISSOURI	9	3	4	16
MONTANA	7	2	3	12
NEBRASKA	35	23	9	67
NEVADA	1	2	5	8
NEW HAMPSHIRE	9	7	1	17
NEW JERSEY	6	1	1	8
NEW MEXICO	0	2	4	6
NEW YORK	93	15	13	121
NORTH CAROLINA	5	8	3	16
NORTH DAKOTA	0	8	10	18
OHIO	1	32	6	39
OKLAHOMA	0	0	2	2
OREGON	15	10	11	36
PENNSYLVANIA	41	5	0	46
RHODE ISLAND	4	0	2	6
SOUTH CAROLINA	39	11	2	52
SOUTH DAKOTA	0	12	5	17
TENNESSEE	25	5	0	30
TEXAS	65	11	5	81
UTAH	12	7	1	20
VERMONT	31	18	15	64
VIRGINIA	2	9	1	12
WASHINGTON	58	34	24	116
WEST VIRGINIA	2	3	1	6
WISCONSIN	78	22	35	135
WYOMING	3	0	1	4
PUERTO RICO	0	0	1	1
TOTAL	1,069	662	670	2,401

TABLE 2C

STATUS OF BRIDGES APPROVED FOR THE BRIDGE PROGRAMS
OPTIONAL 20 PERCENT ON/OFF-SYSTEM - 114
AS OF DECEMBER 31, 1981

	BRIDGES BEING PREPARED FOR CONSTRUCTION	BRIDGES UNDER CONSTRUCTION	BRIDGES COMPLETE	TOTAL
ALABAMA	4	3	2	9
ALASKA	0	0	0	0
ARIZONA	0	1	0	1
ARKANSAS	0	0	0	0
CALIFORNIA	5	9	1	15
COLORADO	1	0	0	1
CONNECTICUT	3	0	0	3
DELAWARE	0	0	0	0
DIST. OF COL.	1	0	0	1
FLORIDA	15	6	2	23
GEORGIA	4	25	4	33
HAWAII	0	0	0	0
IDAHO	0	3	1	4
ILLINOIS	31	127	72	230
INDIANA	3	13	0	16
IOWA	2	58	21	81
KANSAS	16	17	1	34
KENTUCKY	9	5	8	22
LOUISIANA	0	0	3	3
MAINE	0	0	0	0
MARYLAND	1	0	0	1
MASSACHUSETTS	0	0	0	0
MICHIGAN	2	10	7	19
MINNESOTA	0	8	29	37
MISSISSIPPI	2	7	0	9
MISSOURI	0	1	3	4
MONTANA	0	3	0	3
NEBRASKA	16	17	1	34
NEVADA	2	0	0	2
NEW HAMPSHIRE	1	4	1	6
NEW JERSEY	0	0	0	0
NEW MEXICO	0	3	0	3
NEW YORK	21	9	8	38
NORTH CAROLINA	6	7	0	13
NORTH DAKOTA	0	8	5	13
OHIO	0	0	0	0
OKLAHOMA	0	1	1	2
OREGON	0	1	1	2
PENNSYLVANIA	3	0	0	3
RHODE ISLAND	0	0	0	0
SOUTH CAROLINA	1	1	0	2
SOUTH DAKOTA	0	12	10	22
TENNESSEE	34	12	1	47
TEXAS	0	0	0	0
UTAH	4	3	1	8
VERMONT	10	5	2	17
VIRGINIA	1	0	2	3
WASHINGTON	0	3	0	3
WEST VIRGINIA	0	4	1	5
WISCONSIN	28	11	16	55
WYOMING	0	3	0	3
PUERTO RICO	0	0	0	0
TOTAL	226	400	204	830

TABLE 3

HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM
DISCRETIONARY FUNDING STATUS REPORT

STATE	BRIDGE	ALLOCATIONS APPROVED (IN MILLIONS) FY 1979	FY 1980	FY 1981	FY 1982
Alabama	Cochrane	$ 0.608	$ 1.200	$ 1.520	
	Claiborne-Murphy				$ 0.640
Alaska	Gastineau and Kowee Cr.	20.741			
California	Golden Gate	1.000	2.549	15.300	26.012
	San Mateo		0.720	4.000	8.080
Colorado	Colfax-Larimar Viaduct				6.080
Delaware	Augustine Cutoff		6.463		
	US 113 over St. Jones River				10.560
Florida	Barron Collier		10.020		
Georgia	Torras Causeway		1.600		32.400
Idaho	Sandpoint	9.600			
	Bonners Ferry				9.760
Illinois	Mississippi River @ Quincy	0.400	0.800	1.360	5.800
	US 36 @ Florence	13.970	15.280		
	Pekin	11.400		3.600	

TABLE 3 (cont.)

HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM
DISCRETIONARY FUNDING STATUS REPORT

STATE	BRIDGE	ALLOCATIONS APPROVED (IN MILLIONS) FY 1979	FY 1980	FY 1981	FY 1982
Iowa/Wisconsin	Eagle Point	$ 5.600	$ 23.700	$ 2.496	
Iowa	Keokuk	0.360	0.440	7.856	
Iowa/Nebraska	Missouri River @ Sioux City	2.723	0.400		
Kansas/Missouri	US 36/Missouri River	8.002	5.626	1.958	$ 4.293
Maine	Million Dollar	0.400		0.400	
	Wiscasset-Edgecomb		2.500	3.700	
Maryland	South River		17.433		
Massachusetts	Fore River	0.240		2.400	
Michigan	Third Street		1.824		
Mississippi	Natchez-Vidalia	1.680		8.000	
Missouri	US 67	15.684	3.291	0.154	0.354
	US 54/Grand Glaize				6.185
	ASB		8.620	0.478	2.845
Nebraska/Iowa	Nebraska City				0.565
New York	South Park Avenue	8.371			
	Queensboro	1.335		18.588	28.800

TABLE 3 (cont.)

HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM
DISCRETIONARY FUNDING STATUS REPORT

STATE	BRIDGE	ALLOCATIONS APPROVED (IN MILLIONS) FY 1979	FY 1980	FY 1981	FY 1982
New York (cont.)	Manhattan	$ 2.152			$ 5.464
	Little Falls	$ 3.350			
New York/Vermont	Rouses Point			$ 0.400	1.016
North Dakota	Bismarck Memorial			1.850	14.950
Ohio	North Main Street Viaduct	18.400	$ 7.480		
Oregon	Center Street	0.720	0.320	22.400	0.480
Pennsylvania	Bloomfield	2.880	6.640	8.640	
	Passyunk Avenue	30.000			
	Beaver Falls		0.800	11.520	
Rhode Island	Jamestown	0.080	2.938		0.400
South Carolina	Hilton Head, Skull & Mackey Cr.	2.500	13.386		
	Sampit River		1.000	11.040	
	James Island			4.400	1.760
Tennessee	Walnut Street				27.000
Texas	Brazos River Diversion Channel		8.400		

TABLE 3 (cont.)

HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM
DISCRETIONARY FUNDING STATUS REPORT

STATE	BRIDGE	ALLOCATIONS APPROVED (IN MILLIONS) FY 1979	FY 1980	FY 1981	FY 1982
Virginia	James River	$ 8.300	$ 16.000	$ 1.120	
	Nansemond River	3.353			
Washington	Swinomish Channel	8.190	2.087	1.595	
	Pasco-Kennewick	2.337			
	West Seattle			60.000	
West Virginia/Ohio	Weirton-Steubenville				$ 8.000
Wisconsin/Minnesota	Arrowhead	13.320	31.820	7.868	4.857
	Total	$197.696	$193.337	$202.643	$206.301

TABLE 4A

LIST OF DEFICIENT BRIDGES BY STATE
ON FEDERAL-AID SYSTEM

	NUMBER OF BRIDGES IN INVENTORY	STRUCTURALLY DEFICIENT	FUNCTIONALLY OBSOLETE	NUMBER OF DEFICIENT BRIDGES
ALABAMA	7,018	885	1,349	2,234
ALASKA	533	44	13	57
ARIZONA	4,256	55	97	152
ARKANSAS	5,532	331	1,136	1,467
CALIFORNIA	14,079	535	1,483	2,018
COLORADO	3,413	226	231	457
CONNECTICUT	2,496	105	681	786
DELAWARE	441	45	7	52
DIST. OF COL.	223	48	2	50
FLORIDA	5,407	154	1,336	1,490
GEORGIA	7,759	325	2,393	2,718
HAWAII	631	89	43	132
IDAHO	1,653	232	81	313
ILLINOIS	10,051	1,133	952	2,085
INDIANA	6,588	846	1,859	2,705
IOWA	6,575	715	1,426	2,141
KANSAS	10,245	1,008	2,175	3,183
KENTUCKY	4,816	443	996	1,439
LOUISIANA	5,675	1,425	1,195	2,620
MAINE	1,235	108	93	201
MARYLAND	2,368	112	331	443
MASSACHUSETTS	3,167	528	76	604
MICHIGAN	5,550	614	343	957
MINNESOTA	5,002	470	601	1,071
MISSISSIPPI	7,231	2,245	1,876	4,121
MISSOURI	8,372	413	2,824	3,237
MONTANA	2,264	173	868	1,041
NEBRASKA	5,130	423	1,242	1,665
NEVADA	769	7	96	103
NEW HAMPSHIRE	1,183	108	200	308
NEW JERSEY	3,145	580	172	752
NEW MEXICO	2,892	147	196	343
NEW YORK	8,781	3,308	439	3,747
NORTH CAROLINA	4,953	669	1,895	2,564
NORTH DAKOTA	1,644	198	317	515
OHIO	12,023	852	316	1,168
OKLAHOMA	7,283	400	526	926
OREGON	3,722	256	274	530
PENNSYLVANIA	10,634	1,319	608	1,927
RHODE ISLAND	566	58	11	69
SOUTH CAROLINA	4,069	197	496	693
SOUTH DAKOTA	2,797	167	221	388
TENNESSEE	8,058	1,327	1,729	3,056
TEXAS	24,604	719	3,885	4,604
UTAH	1,391	40	34	74
VERMONT	1,267	78	380	458
VIRGINIA	6,650	681	638	1,319
WASHINGTON	3,920	165	731	896
WEST VIRGINIA	3,219	734	336	1,070
WISCONSIN	6,025	1,474	793	2,267
WYOMING	1,919	57	127	184
PUERTO RICO	726	83	213	296
TOTAL	259,950	27,354	40,342	67,696

TABLE 4B

LIST OF DEFICIENT BRIDGES BY STATE
OFF FEDERAL-AID SYSTEM

	NUMBER OF BRIDGES IN INVENTORY (96% COMPLETE)	STRUCTURALLY DEFICIENT	FUNCTIONALLY OBSOLETE	NUMBER OF DEFICIENT BRIDGES
ALABAMA	7,784	2,448	1,932	4,380
ALASKA	258	75	19	94
ARIZONA	675	90	33	123
ARKANSAS	8,961	1,708	4,227	5,935
CALIFORNIA	6,620	1,048	2,464	3,512
COLORADO	2,844	1,521	330	1,851
CONNECTICUT	1,199	134	284	418
DELAWARE	245	47	13	60
DIST. OF COL.	13	1	0	1
FLORIDA	3,604	427	616	1,043
GEORGIA	6,632	2,938	1,003	3,941
HAWAII	373	31	72	103
IDAHO	1,929	544	472	1,016
ILLINOIS	14,622	4,367	2,440	6,807
INDIANA	10,937	3,689	4,320	8,009
IOWA	18,981	4,911	6,232	11,143
KANSAS	14,377	5,561	5,820	11,381
KENTUCKY	7,717	2,700	1,200	3,900
LOUISIANA	8,643	5,419	1,902	7,321
MAINE	1,356	337	215	552
MARYLAND	1,492	152	363	515
MASSACHUSETTS	1,103	356	45	401
MICHIGAN	4,448	2,250	361	2,611
MINNESOTA	7,828	1,249	2,068	3,317
MISSISSIPPI	9,237	4,954	1,898	6,852
MISSOURI	15,150	2,557	10,740	13,297
MONTANA	2,283	982	644	1,626
NEBRASKA	11,547	5,016	4,247	9,263
NEVADA	255	28	48	76
NEW HAMPSHIRE	1,345	435	624	1,059
NEW JERSEY	1,552	421	193	614
NEW MEXICO	633	158	102	260
NEW YORK	8,545	5,597	1,038	6,635
NORTH CAROLINA	10,445	5,137	3,672	8,809
NORTH DAKOTA	3,809	1,402	1,421	2,823
OHIO	16,745	2,185	1,873	4,058
OKLAHOMA	13,717	7,532	2,696	10,228
OREGON	2,566	269	621	890
PENNSYLVANIA	10,004	2,464	1,339	3,803
RHODE ISLAND	123	25	22	47
SOUTH CAROLINA	4,487	816	442	1,258
SOUTH DAKOTA	3,513	681	1,717	2,398
TENNESSEE	8,809	3,764	2,205	5,969
TEXAS	18,061	7,004	5,159	12,163
UTAH	903	234	96	330
VERMONT	1,377	158	825	983
VIRGINIA	5,587	470	458	928
WASHINGTON	2,647	412	600	1,012
WEST VIRGINIA	3,048	1,341	440	1,781
WISCONSIN	6,521	2,817	1,511	4,328
WYOMING	958	362	308	670
PUERTO RICO	858	77	160	237
TOTAL	297,566	99,301	81,530	180,831

CHART 1A

MANDATORY 65% ON SYSTEM-118
PROGRAM DEVELOPMENT CHART

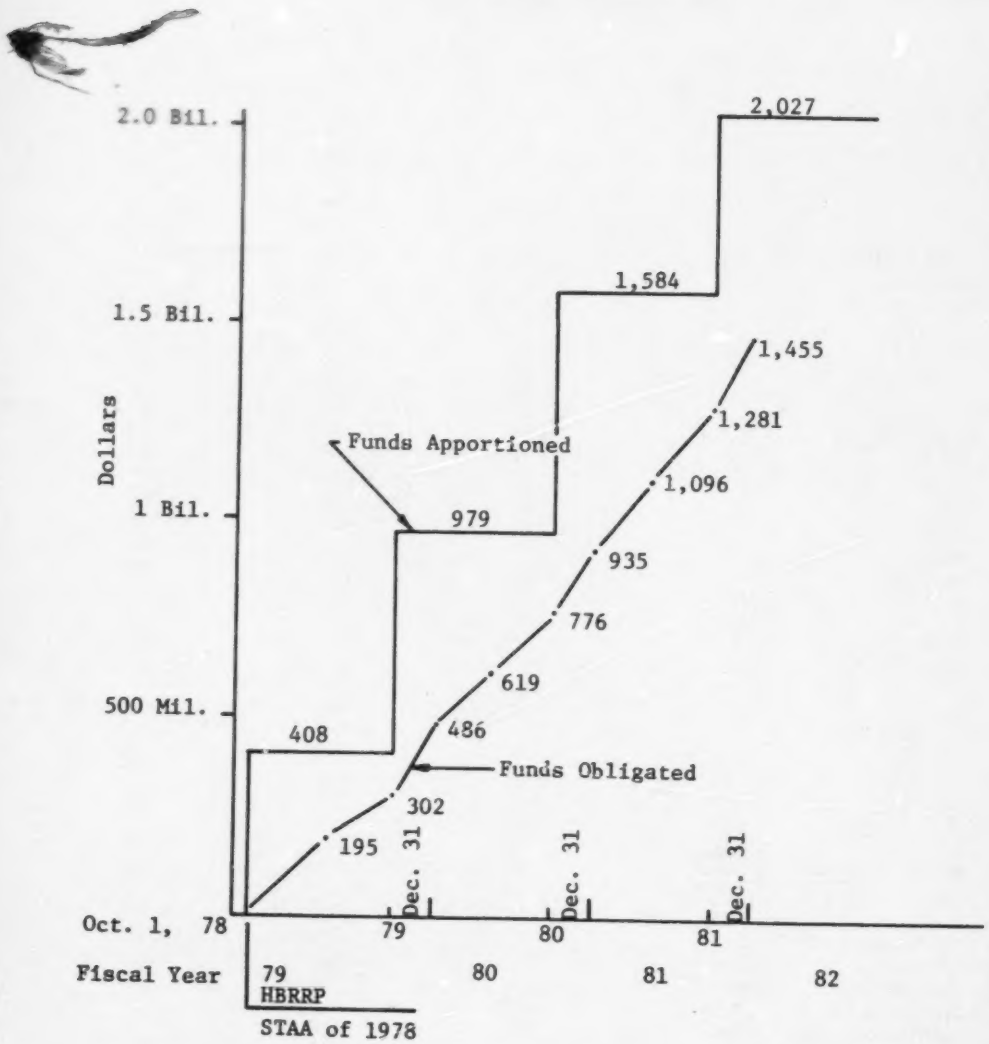


CHART 1B

MANDATORY 15% OFF-SYSTEM-117
PROGRAM DEVELOPMENT CHART

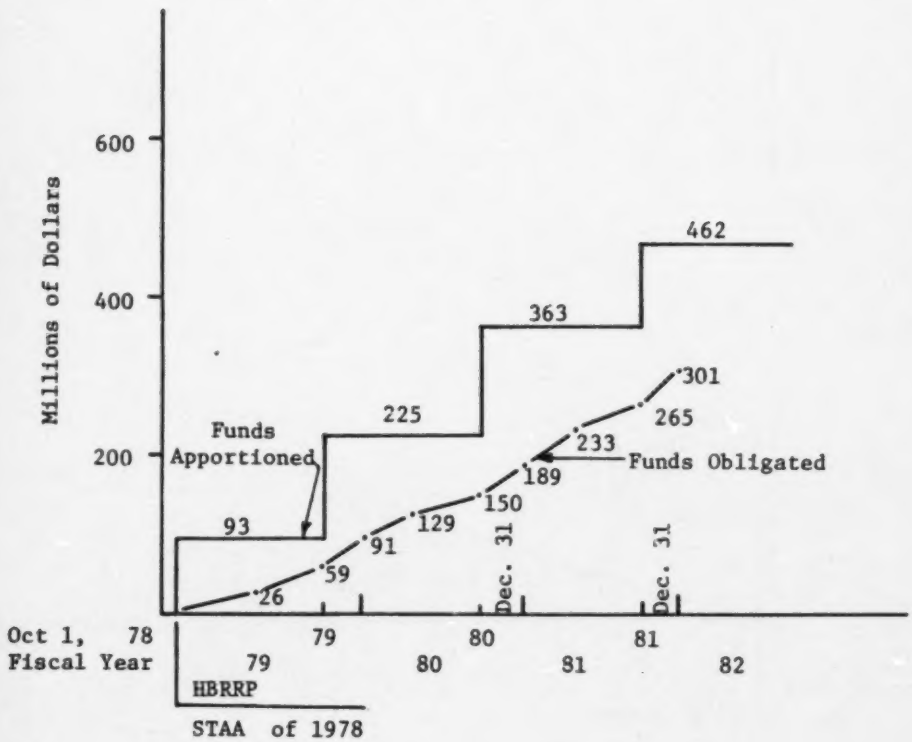


CHART 1C

OPTIONAL 20% ON/OFF-SYSTEM-114
PROGRAM DEVELOPMENT CHART

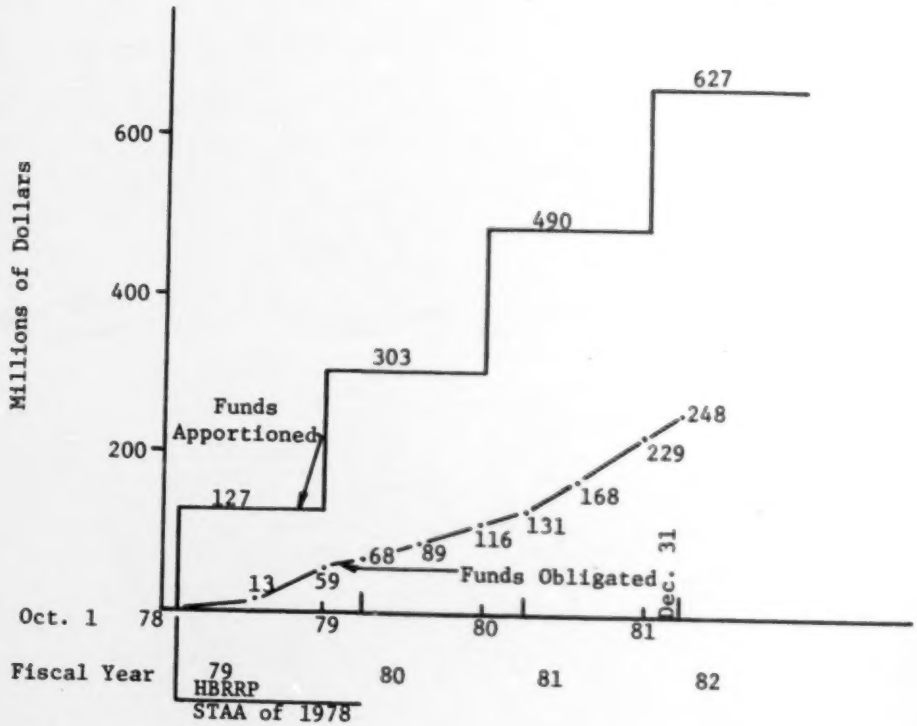


CHART 1D

DISCRETIONARY FUNDS-119
PROGRAM DEVELOPMENT CHART

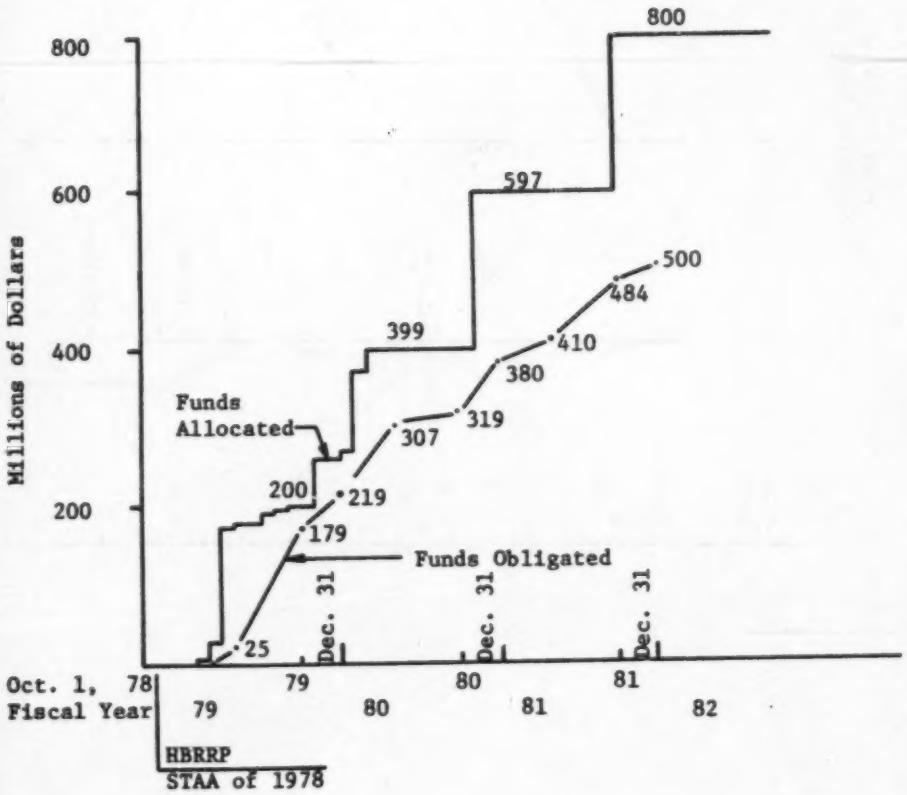
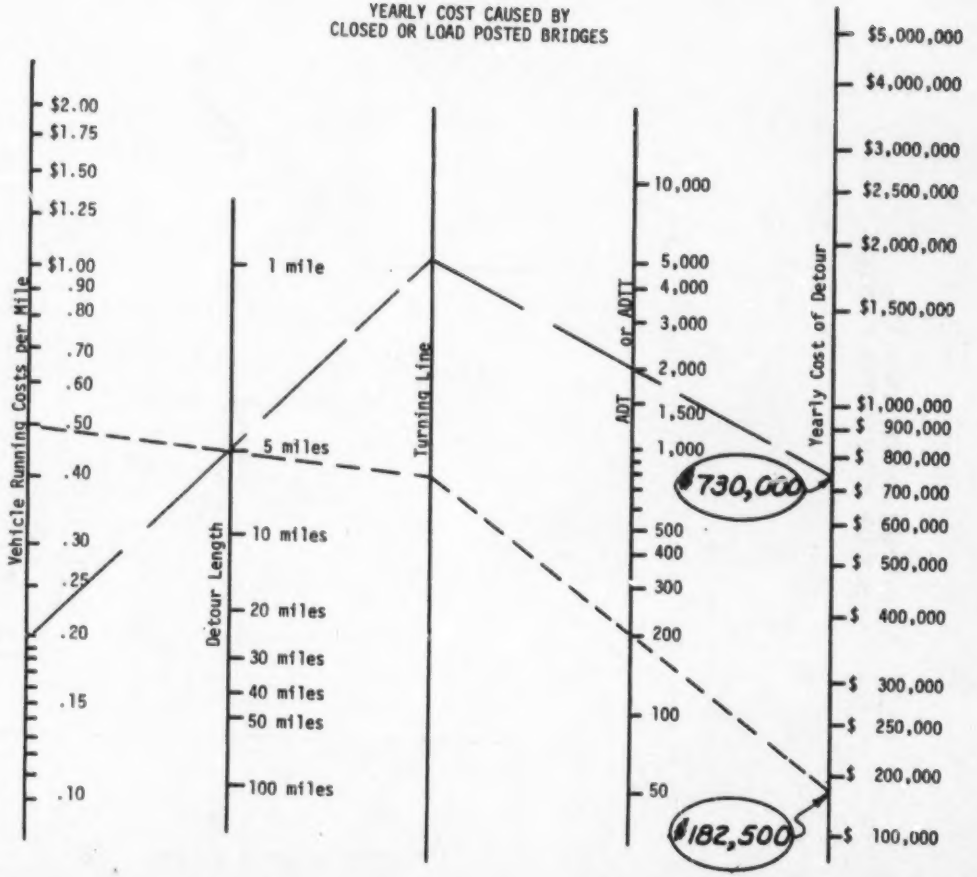


CHART 2

YEARLY COST CAUSED BY
CLOSED OR LOAD POSTED BRIDGES



EXAMPLE - CHART 2

YEARLY COST CAUSED BY CLOSED OR LOAD POSTED BRIDGES

A load posted bridge carrying 2,000 autos and 200 trucks per day must be detoured by trucks. The detour length is 5 miles.

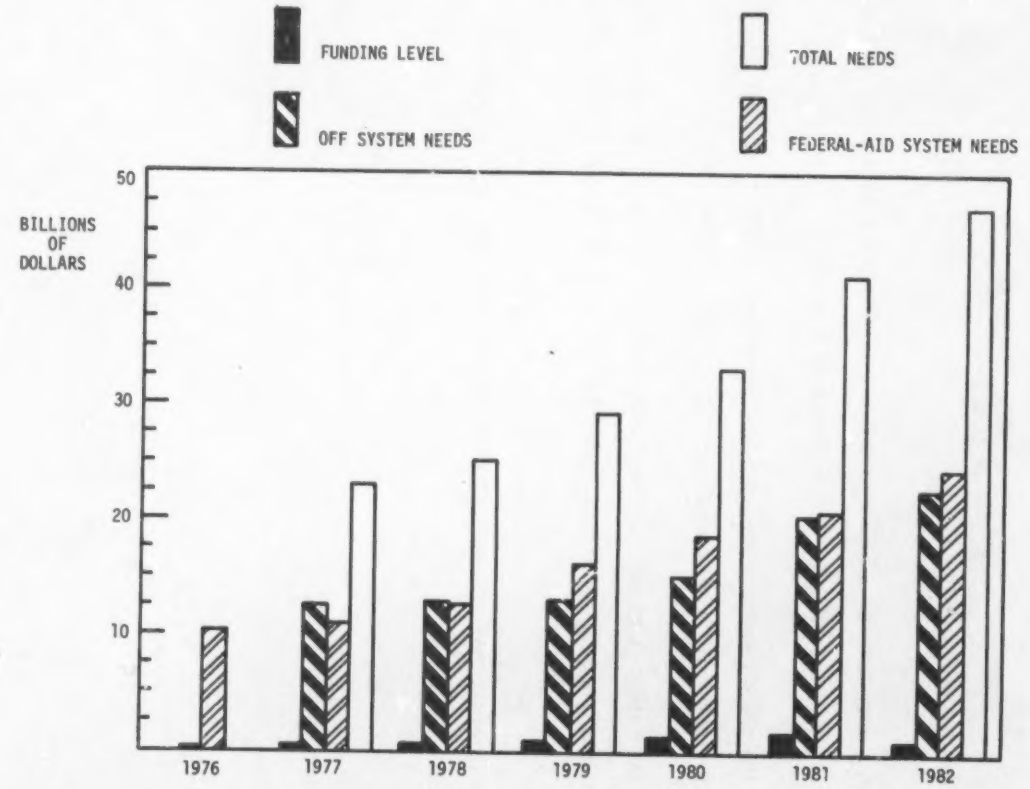
If the truck running costs are $0.50 per mile, the 200 trucks per day incur additional total operating costs of $182,500 per year.

If the bridge is closed and the 2,000 autos per day must also detour the 5 miles, the total additional operating costs at $0.20 per mile are $730,000 per year for the autos.

The combined costs for autos and trucks would be $912,500 per year.

CHART 3

COMPARISON BETWEEN FUNDING LEVELS AND NEEDS FOR THE HIGHWAY BRIDGE REPLACEMENT AND REHABILITATION PROGRAM



CODE OF FEDERAL REGULATIONS

23 HIGHWAYS - PART 650

Subpart D—Highway Bridge Replacement and Rehabilitation Program

§ 650.401 Purpose.

The purpose of this regulation is to prescribe policies and outline procedures for administering the Highway Bridge Replacement and Rehabilitation Program in accordance with 23 U.S.C. 144.

§ 650.403 Definitions of terms.

(a) *Bridge.* A structure, including supports, erected over a depression or an obstruction, such as water, a highway, or a railway, having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of the openings for multiple boxes; it may include multiple pipes where the clear distance between openings is less than half of the smaller contiguous opening.

(b) *Sufficiency rating.* The numerical rating of a bridge based on its structural adequacy and safety, essentiality for public use, and its serviceability and functional obsolescence.

(c) *Rehabilitation.* The major work required to restore the structural integrity of a bridge as well as work necessary to correct major safety defects.

§ 650.405 Eligible projects.

(a) *General.* Deficient highway bridges on all public roads may be eligible for replacement or rehabilitation.

(b) *Types of projects which are eligible.* The following types of work are eligible for participation in the Highway Bridge Replacement and Rehabilitation Program (HBRRP), hereinafter known as the bridge program.

(1) *Replacement.* Total replacement of a structurally deficient or functionally obsolete bridge with a new facility constructed in the same general traffic corridor. A nominal amount of approach work sufficient to connect the new facility to the existing roadway or to return the gradeline to an attainable touchdown point in accordance with good design practice is also eligible. The replacement structure must meet the current geometric, construction and structural standards required for the types and volume of projected traffic on the facility over its design life.

(2) *Rehabilitation.* The project requirements necessary to perform the major work required to restore the structural integrity of a bridge as well as work necessary to correct major safety defects are eligible except as noted under ineligible work. Bridges to be rehabilitated both on or off the F-A System shall, as a minimum, conform with the provisions of 23 CFR Part 625, Design Standards for Federal-aid Highways, for the class of highway on which the bridge is a part.

(c) *Ineligible work.* Except as otherwise prescribed by the Administrator, the costs of long approach fills, causeways, connecting roadways, interchanges, ramps, and other extensive earth structures, when constructed beyond the attainable touchdown point, are not eligible under the bridge program.

§ 650.407 Application for bridge replacement or rehabilitation.

(a) Agencies participate in the bridge program by conducting bridge inspections and submitting Structure Inventory and Appraisal (SI&A) sheet inspection data. Federal and local governments supply SI&A sheet data to the State agency for review and processing. The State is responsible for submitting the six computer card format or tapes containing all public road SI&A sheet bridge information through the Division Administrator of the Federal Highway Administration [FHWA] for processing. These requirements are prescribed in 23 CFR 650.309 and 650.311, the National Bridge Inspection Standards.

(b) Inventory data may be submitted as available and shall be submitted at such additional times as the FHWA may request.

(c) Inventory data on bridges that have been strengthened or repaired to eliminate deficiencies, or those that have been replaced or rehabilitated using bridge replacement and/or other funds, must be revised in the inventory through data submission.

(d) The Secretary may, at the request of a State, inventory bridges, on and off the Federal-aid system, for historic significance.

§ 650.409 Evaluation of bridge inventory.

(a) *Sufficiency rating of bridges.* Upon receipt and evaluation of the bridge inventory, a sufficiency rating will be assigned to each bridge by the Secretary in accordance with the approved AASHTO[1] sufficiency rating formula. The sufficiency rating will be used as a basis for establishing eligibility and priority for replacement or rehabilitation of bridges; in general the lower the rating, the higher the priority.

(b) *Selection of bridges for inclusion in State program.* After evaluation of the inventory and assignment of sufficiency ratings, the Secretary will provide the State with a selection list of bridges within the State that are eligible for the bridge program. From that list or from previously furnished selection lists, the State may select bridge projects.

§ 650.411 Procedures for bridge replacement and rehabilitation projects.

(a) Consideration shall be given to projects which will remove from service highway bridges most in danger of failure.

(b) *Submission and approval of projects.* (1) Bridge replacement or rehabilitation projects shall be submitted by the State to the Secretary in accordance with 23 CFR Part 630 Subpart A Federal-Aid Programs, Approval and Authorization.

(2) Funds apportioned to a State shall be made available throughout each State on a fair and equitable basis.

(c)(1) Each approved project will be designed, constructed, and inspected for acceptance in the same manner as other projects on the system on which the project is located. It shall be the responsibility of the State agency to properly maintain, or cause to be properly maintained, any project constructed under this bridge program. The State highway agency shall enter into a formal agreement for maintenance with appropriate local government officials in cases where an eligible project is located within and is under the legal authority of such a local government.

(2) Whenever a deficient bridge is replaced or its deficiency alleviated by a new bridge under the bridge program, the deficient bridge shall either be dismantled or demolished or its use limited to the type and volume of traffic the structure can safely service over its remaining life. For example, if the only deficiency of the existing structure is inadequate roadway width and the combination of the new and existing structure can be made to meet current standards for the volume of traffic the facility will carry over its design life, the existing bridge may remain in place and be incorporated into the system.

§ 650.413 Funding.

(a) Funds authorized for carrying out the Highway Bridge Replacement and Rehabilitation Program are available for obligation at the beginning of the fiscal year for which authorized and remain available for expenditure for the same period as funds apportioned for projects on the Federal-aid primary system.

(b) The Federal share payable on account of any project carried out under 23 U.S.C. 144 shall be 80 percent of the eligible cost.

(c) Not less than 15 percent nor more than 35 percent of the apportioned funds shall be expended for projects located on public roads, other than those on a Federal-aid system. The Secretary after consultation with State and local officials may, with respect to a State, reduce the requirement for expenditure for bridges not on a Federal-aid system when he determines that such State has inadequate needs to justify such expenditure.

§ 650.415 Reports.

The Secretary must report annually to the Congress on projects approved and current inventories together with recommendations for further improvements.

APPENDIX B

CODE OF FEDERAL REGULATIONS

23 HIGHWAYS - PART 650

Subpart C—National Bridge Inspection Standards

§ 650.301 Application of standards.

The National Bridge Inspection Standards in this part apply to all structures defined as bridges located on all public roads. In acordance with the AASHTO (American Association of State Highway and Transportation Officials) Highway Definitions Manual, a "bridge" is defined as a structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

§ 650.303 Inspection procedures.

(a) Each highway department shall include a bridge inspection organization capable of performing inspections, preparing reports, and determining ratings in accordance with the provisions of the AASHTO Manual [1] and the Standards contained herein.

(b) Bridge inspectors shall meet the minimum qualifications stated in § 650.307.

[1] The "AASHTO Manual" referred to in this part is the "Manual for Maintenance Inspection of Bridges 1978" published by the American Association of State Highway and Transportation Officials. A copy of the Manual may be examined during normal business hours at the office of each Division Administrator of the Federal Highway Administration, at the office of each Regional Federal Highway Administrator, and at the Washington Headquarters of the Federal Highway Administration. The addresses of these document inspection facilities are set forth in Appendix D to Part 7 of the regulations of the Office of the Secretary (49 CFR Part 7). In addition, a copy of the Manual may be secured upon payment in advance by writing to the American Association of State Highway and Transportation Officials, 444 N. Capitol Street, NW., Suite 225, Washington, D.C. 20001.

(c) Each structure required to be inspected under the Standards shall be rated as to its safe load carrying capacity in accordance with section 4 of the AASHTO Manual. If it is determined under this rating procedure that the maximum legal load under State law exceeds the load permitted under the Operating Rating, the bridge must be posted in conformity with the AASHTO Manual or in accordance with State law.

(d) Inspection records and bridge inventories shall be prepared and maintained in accordance with the Standards.

§ 650.305 Frequency of inspections.

(a) Each bridge is to be inspected at regular intervals not to exceed 2 years in accordance with section 2.3 of the AASHTO Manual.

(b) The depth and frequency to which bridges are to be inspected will depend on such factors as age, traffic characteristics, state of maintenance, and known deficiencies. The evaluation of these factors will be the responsibility of the individual in charge of the inspection program.

§ 650.307 Qualifications of personnel.

(a) The individual in charge of the organizational unit that has been delegated the responsibilities for bridge inspection, reporting, and inventory shall possess the following minimum qualifications:

(1) Be a registered professional engineer; or

(2) Be qualified for registration as a professional engineer under the laws of the State; or

(3) Have a minimum of 10 years experience in bridge inspection assignments in a responsible capacity and have completed a comprehensive training course based on the "Bridge Inspector's Training Manual," [2] which has been developed by a joint Federal-State task force.

(b) An individual in charge of a bridge inspection team shall possess the following minimum qualifications:

(1) Have the qualifications specified in paragraph (a) of this section; or

[2] The "Bridge Inspector's Training Manual" may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

(2) Have a minimum of 5 years experience in bridge inspection assignments in a responsible capacity and have completed a comprehensive training course based on the "Bridge Inspector's Training Manual," which has been developed by a joint Federal-State task force.

§ 650.309 Inspection report.

The findings and results of bridge inspections shall be recorded on standard forms. The data required to complete the forms and the functions which must be performed to compile the data are contained in section 3 of the AASHTO Manual.

§ 650.311 Inventory.

(a) Each State shall prepare and maintain an inventory of all bridge structures subject to the Standards. Under these Standards, certain structure inventory and appraisal data must be collected and retained within the various departments of the State organization for collection by the Federal Highway Administration as needed. A tabulation of this data is contained in the structure inventory and appraisal sheet distributed by the Federal Highway Administration as part of the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges (Coding Guide) in January of 1979. Reporting procedures have been developed by the Federal Highway Administration.

(b) All bridges subject to these Standards shall be inventoried by December 31, 1980, as required by section 124(a), and (c) of the Surface Transportation Assistance Act of 1978. Newly completed structures or any modification of existing structures which would alter previously recorded data on the inventory forms shall be entered in the State's records within 90 days.

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